



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,489	08/22/2003	Nalin Mistry	NRT.0180US (15794ROUS02U)	8712
21906	7590	10/29/2007		EXAMINER
TROP PRUNER & HU, PC 1616 S. VOSS ROAD, SUITE 750 HOUSTON, TX 77057-2631				PHAN, MAN U
			ART UNIT	PAPER NUMBER
				2619
			MAIL DATE	DELIVERY MODE
			10/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/645,489	MISTRY ET AL.
	Examiner Man Phan	Art Unit 2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 22 August 2007.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1,2,4,5 and 7-21 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1,2,4,5,7,8 and 10-21 is/are rejected.
 7) Claim(s) 9 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application
 6) Other: _____.

Response to Amendment and Argument

1. This communication is in response to applicant's 08/22/2007 Amendment in the application of Mistry et al. for the "Multi staged service s policing" filed 08/22/2003. This application claims priority from provisional application 60/440,625 filed 01/17/2003. The amendment and response has been entered and made of record. Claims 3, 6 have been canceled per Applicant's request, claims 10-14 have been amended, and new claims 15-21 have been added. Claims 1-2, 4-5, 7-21 are pending in the application.

The rejection of record with respect to claim 12 under 35 U.S.C. 101, is hereby removed based on applicant's amendment.

2. Applicant's remarks and argument to the rejected claims are insufficient to distinguish the claimed invention from the cited prior arts or overcome the rejection of said claims under 35 U.S.C. 103 as discussed below. Applicant's argument with respect to the pending claims have been fully considered, but they are not persuasive for at least the following reasons.

3. In response to applicant's argument that the combination of cited references fails to present a *prima facie* case of obviousness. In response, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). It is not necessary that a "prima facie" case of unpatentability exist as to the claim in

order for “a substantial new question of patentability” to be present as to the claim. Thus, “a substantial new question of patentability” as to a patent claim could be present even if the examiner would not necessarily reject the claim as either fully anticipated by, or obvious in view of, the prior art patents or printed publications. As to the importance of the difference between “a substantial new question of patentability” and a “prima facie” case of unpatentability see generally *In re Etter*, 756 F.2d 852, 857 n.5, 225 USPQ 1, 4 n.5 (Fed. Cir. 1985). Also, See MPEP § 2141.01(a) for a discussion of analogous and nonanalogous art in the context of establishing a prima facie case of obviousness under 35 U.S.C. 103. See MPEP § 2131.05 for a discussion of analogous and nonanalogous art in the context of 35 U.S.C. 102. 904.02.

In response to Applicant’s argument that there is no suggestion to combine the references, i.e., Buskirk et al. (US#6,901,052) and Bonaventure (US#6,618,356) as proposed in the office action. The Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. *In re Nomiya*, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 170 USPQ 209 (CCPA 1971). It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant’s disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The Examiner emphasizes for the record that the claims employ a broader in scope than the Applicant's disclosure in all aspects. In addition, the Applicant has not argued any narrower interpretation of the claim limitations, nor amended the claims significantly enough to construe a narrower meaning to the limitations. Since the claims breadth allows multiple interpretations and meanings, which are broader than Applicant's disclosure, the Examiner is required to interpret the claim limitations in terms of their broadest reasonable interpretations while determining patentability of the disclosed invention. See MPEP 2111. In other words, the claims must be given their broadest reasonable interpretation consistent with the specification and the interpretation that those skilled in the art would reach. See *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000), *In re Cortright*, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999), and *In re American Academy of Science Tech Center*, 2004 WL 1067528 (Fed. Cir. May 13, 2004). Any term that is not clearly defined in the specification must be given its plain meaning as understood by one of ordinary skill in the art. See MPEP 2111.01. See also *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989), *Sunrace Roots Enter. Co. v. SRAM Corp.*, 336 F.3d 1298, 1302, 67 USPQ2d 1438, 1441 (Fed. Cir. 2003), *Brookhill-Wilk I, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 67 USPQ2d 1132, 1136 (Fed. Cir. 2003). The interpretation of the claims by their broadest reasonable interpretation reduces the possibility that, once the claims are issued, the claims are interpreted more broadly than justified. See *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). Also, limitations appearing in the specification but not recited in the claim are not read into the claim. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Therefore, the failure to significantly narrow definition or scope of the claims and supply arguments commensurate in scope with the claims implies the Applicant intends broad interpretation be given to the claims. The Examiner has interpreted the claims in parallel to the Applicant in the response and reiterates the need for the Applicant to distinctly define the claimed invention. Since no substantial amendments have been made and the Applicant's arguments are not persuasive, the claims are drawn to the same invention and the text of the prior art rejection can be found in the previous Office Action. Therefore, the Examiner maintains that the references cited and applied in the last office actions for the rejection of the claims are maintained in this office action.

Claim Objections

4. Claims 1, 2, 9, 13, 15 are objected to because of the following informalities: The claims contains the phrase “*adapted to*”. It has been held that the recitation that an element is “*adapted to*” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. Appropriate correction is required.

Claim Rejections - 35 U.S.C. 112, first paragraph

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention..

6. The newly added claims 15-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The newly added limitations of the claims 12-21 have no support in the disclosure (MPEP § 2161 - § 2165.04. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1998). *Waldemar Link, GmbH & Co. v. Osteonics Corp.* 32 F.3d 556, 559, 31 USPQ2d 1855, 1857 (Fed. Cir. 1994); *In re Rasmussen*, 650 F.2d 1212, 211 USPQ 323 (CCPA 1981). See MPEP § 2163.06 - § 2163.07(b) for a discussion of the relationship of new matter to 35 U.S.C. 112, first paragraph. New matter includes not only the addition of wholly unsupported subject matter, but may also include adding specific percentages or compounds after a broader original disclosure, or even the omission of a step from a method. See MPEP § 608.04 to § 608.04(c). See *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976) and MPEP § 2163.05 for guidance in determining whether the addition of specific percentages or compounds after a broader original disclosure constitutes new matter.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-2, 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buskirk et al. (US#6,901,052) in view of Bonaventure (US#6,618,356).

With respect to claims 1-3 and 13-14, the references disclose a novel system and method for policing data traffic communications networks, according to the essential features of the claims. Buskirk et al. (US#6,901,052) discloses a packet policing system provides multi-protocol policing of packets of a data stream. The policing system includes a classifier to receive and parse the data stream into a plurality of multi-protocol traffic flows. A policing processor is coupled to the classifier to receive each of the traffic flows. The processor is configured to convert each of the packets into a predetermined format, and to perform a shared bandwidth capacity test in order to determine packet conformance for each of the packets. The shared test is applied to all packets, regardless with their original protocol affiliation (See Fig. 1; Col. 4, lines 13 plus). Buskirk further teaches in Fig. 4 a block diagram illustrating selected functional blocks of an ingress processing system such as that described in connection with Fig. 3. The ingress processing system 400 of Fig. 4 illustrates the classifier functional block 402, the policer

functional block 404, and the editor functional block 406. The policer 404 performs a variety of functions, including ensuring flow conformance to a maximum allowed peak rate and a contractually obliged committed rate flow, e.g., DiffServ IP and MPLS. The policer 404 works with memory, such as SRAM 414 which stores parameters for each connection. The editor 406 supports policing results and makes other appropriate modifications to the packet before being output from the ingress processing system 400. An external memory, such as SRAM 416, may be used to store the editor instructions. The coprocessor/CPU interface 408 provides for coprocessor/CPU support via interface 408, thereby allowing processor control, configuration, etc. of the classifier 402, policer 404, and editor 406. The interface 408 allows the system 400 to be coupled to a coprocessor and/or other CPU such as CPU 420, and to memory such as SRAM 422. In this manner, the ingress processing system 400 receives incoming packets, classifies and parses the packets according to predetermined criteria such as protocol, enforces policing functions on the packets, and modifies the packets accordingly before outputting the packets to the switch fabric (Col. 9, lines 8 plus).

In the same field of endeavor, Bonaventure (US#6,618,356) teaches in the Figure a block diagram illustrated a data traffic policer (POL) included in a telecommunication network, to police data traffic which includes data packets. The data traffic policer POL includes an input IN and an output OUT. Furthermore the data traffic policer POL includes a receiver REC, a transmitter TR, a first determiner DET1, a second determiner DET2, a first controller CTRL1, a second controller CTRL2 and a declaring device DECL. The input IN and the output OUT of the policer POL are both coupled to the common communication link L. The receiver REC is coupled to the input IN and to the first determiner DET1 and to the second determiner DET2.

The first determiner DET1 is coupled to the first controller CTRL1 and the second determiner DET2 is coupled to the second controller CTRL2. Both controllers CTRL1 and CTRL2 are coupled to the declaring device DECL that on its turn is coupled to the transmitter TR. Finally the transmitter TR is coupled to the output OUT of the data traffic policer POL. The receiver REC receives the incoming data packets being transported over the common communication link L. Upon reception of a data packet, the receiver REC provides the information of the header part of this data packet i.e. ATM header to the first determiner DET1 and to the second determiner DET2. The first determiner DET1 determines by means of the received header information the lower order identifier LOI and provides it to the first controller CTRL1. The second determiner DET2 determines by means of the received header information the higher order identifier HOI and provides it to the second controller CTRL2. The first controller CTRL1 executes a lower order conformance checking LOC according to the predefined lower order conformance rules being defined in the traffic contract that is referred to by the received lower order identifier LOC(LOI). The first controller CTRL1 provides hereby a lower order conformance result LOCR that equals lower order conforming or lower order non-conforming. This lower order conformance result LOCR is forwarded to the declaring device DECL. The second controller CTRL2 executes a higher order conformance checking HOC according to the predefined higher order conformance rules being defined in the traffic contract that is referred to by the received higher order identifier HOC(HOI). The second controller CTRL2 provides hereby a higher order conformance result HOCR that equals higher order conforming or higher order non-conforming. This higher order conformance result HOCR is forwarded to the declaring device DECL. In the event when the received lower order conformance result equals non-conforming and the received

higher order conformance result equals conforming, the declaring device declares the received data packet as conforming. Since other situations according to other conformance results are going beyond the aim of the invention, the functionality of the declaring means according to these further situations is not described here in further detail. When the declaring device declares the received data packet as conforming, the data packet might be transmitted on the communication link L. The declaring device DECL forwards a permission signal to the transmitter TR and the transmitter TR transmits the conforming data packet on the communication link L (Col. 6, lines 63 plus).

Regarding claims 4-8, the reliance on a commonly known standard such as the use of Layer 2 technologies like Frame relay and ATM cell in the manner claimed would have been obvious to the artisan as a matter of the design choice. The most common approach to handling these problems has been to use an Asynchronous Transfer Mode (ATM) virtual circuit (VC) for each subscriber and to set a limit on the VC. This is known as traffic provisioning on a per subscriber line basis. This is often accomplished using layer 2 technologies like Frame relay and ATM as admitted by the Applicant as prior art (See specification, page 2). There are a number of standards used in digital telecommunications, including TCP/IP, Ethernet, HDLC, ISDN, ATM, X.25, Frame Relay, Digital Data Service, FDDI (Fiber Distributed Data Interface), T1, xDSL, Wireless, Cable Modems, and Satellite among others. Many of these standards employ different packet and/or frame formats. The term "frame" is often used in reference to encapsulated data at OSI layer 2, including a destination address, control bits for flow control, the data or payload, and CRC (cyclic redundancy check) data for error checking. The term "packet" is often used in reference to encapsulated data at OSI layer 3. Furthermore, Referring to the Figure in

Bonaventure (US#6,618,356), a data traffic policer POL is shown. The data traffic policer POL is preferred to be included in an ATM communication network on a data communication link L. The data communication link data transports packets i.e. ATM cells. The receiver REC receives the incoming data packets being transported over the common communication link L. Upon reception of a data packet, the receiver REC provides the information of the header part of this data packet i.e. ATM header to the first determiner DET1 and to the second determiner DET2 (Col. 6, lines 23 plus).

With respect to claims 10-11, they are method claims corresponding to the apparatus claims as discussed in paragraph above. Therefore, claims 10-11 are analyzed and rejected as previously discussed with respect to claims above.

With respect to claim 12, this claim differ from claims Buskirk et al. (US#6,901,052) in view of Bonaventure (US#6,618,356) in that the claims recited a computer program product for performing the same basis of steps and apparatus of the prior arts as discussed in the rejection of claims above. It would have been obvious to a person of ordinary skill in the art to implement a computer program product in Buskirk et al. in view of Bonaventure for performing the steps and apparatus as recited in the claims with the motivation being to provide the efficient enhancement to the policing data traffic communications networks, and easy to maintenance, upgrade.

One skilled in the art of communications would recognize the need for a novel system and method for services policing in data communications networks, and would apply Bonaventure's novel use of data traffic policer (POL) into Buskirk's system and method for policing one or more flows of data stream of packets associated with different transmission protocols. Therefore, It would have been obvious to a person of ordinary skill in the art at the

time of the invention was made to apply Bonaventure's method for policing data traffic, a data traffic policer realizing such a method and a telecommunication network including such a policer into Buskirk's system and method for policing multiple data flows and multi protocol data flows with the motivation being to provide a system and method for a multi staged services policing.

Allowable Subject Matter

10. Claim 9 is objected to as being dependent upon the rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

11. The following is an examiner's statement of reasons for the indication of allowable subject matter: The closest prior art of record fails to disclose or suggest where the upstream services policer is a first upstream services policer and the multi-staged services policer further comprises a second upstream services policer adapted to transmit traffic units received at the second upstream services policer to the downstream services policer based on an analysis specific to the second upstream services policer and wherein the downstream services policer affords a higher priority to traffic units received from the second upstream services policer than to traffic units received from the first upstream services policer, as specifically recited in the claims.

12. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the

issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Lin et al. (US#7,106,731) is cited to show the router with class of service mapping.

The Lin et al. (US#6,463,068) is cited to show the router with class of service mapping.

The Gupta et al. (US#7,027,394) is cited to show the broadband system with traffic policing and transmission scheduling.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION THIS ACTION IS MADE FINAL**. See MPEP ' 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2619

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (571) 272-3149. The examiner can normally be reached on Mon - Fri from 6:00 to 3:00.

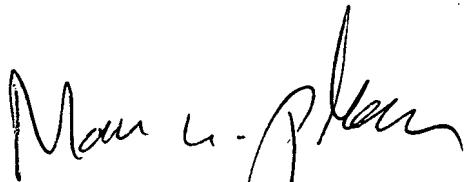
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel, can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan

Oct. 25, 2007



MAN U. PHAN
PRIMARY EXAMINER